SCOTLAND
HISTORIC COMPANIES PROVIDING ENGINEERING SERVICES

Brian Roberts
CIBSE HERITAGE GROUP
Catalogue of Mackenzie & Moncur, 1900.
Appointed Hothouse Builders and Heating Engineers to HRH The Prince of Wales in 1892
Established 1869
MACKENZIE & MONCUR

The firm was founded in 1869 and is known to have been carrying out heating installations in 1879. Their 1900 “List of Specialities” (below) shows that they undertook high and low pressure hot-water heating, steam heating, natural and mechanical ventilation and supplied boilers, radiators, valves and fittings as well as gas and cooking apparatus. In 1954/55, Ian Mackenzie served as President of the Heating & Ventilating Contractors’ Association.
Babcock & Wilcox, Ld.

Engineers and Manufacturers of

Water Tube Steam Boilers,

2,000,000 Horse Power in Use.

European Works and Offices:

Renaix, near Glasgow.

London: 147, Queen Victoria Street, E.C. Glasgow: 21, St. Vincent Place.
Australasian Office—Sydney: 83, Pitt Street.

“Steam,” a valuable Treatise Free on Application.
The Renfrew Factory was opened in 1897

1915
JAMES KEITH, ARBROATH

Advertisement of 1891: The business was founded in 1826

WILLIAM WILSON & COMPANY, GLASGOW

Advertisement from around 1900: Makers of Steam Boilers since 1852
The first “Thermotank” ventilating unit was fitted to the Russian ship Kostrama c.1900. Its inventor, A W Stewart is standing on the right.
The activities of Thermotank Ltd date back to the beginning of the 20th century. The firm was a pioneer in the application of ventilation and warm air heating for ships, operating from 150 Helen Street in Glasgow. It later developed air conditioning for ships, trains and buildings. It provided equipment for many of the famous liners built on the River Clyde, including the old Mauretania and Lusitania, to the Queen Mary and Queen Elizabeth.
INDIVIDUAL UNIT SYSTEM WITH EXISTING VENTILATION SYSTEM

Key to Numbers
1. Individual Unit Room Conditioners.
2. Evaporator/Water Cooler.
3. Refrigerator Compressor.
4. Refrigerator Condenser.
5. Chilled Water Circulating Pump

Key to Colouring
- Fresh Air at Atmospheric Temperature
- Cooled Air
- Refrigerating Plant, Chilled Water Circulating Pump and associated piping.

Thermotank Marine Ventilation System
DRYSDALE & COMPANY LTD, GLASGOW

DRYSDALE PUMPS

are fitted on the Q.S.T.S

"Queen Mary"

for

MAIN CIRCULATING
FORCED LUBRICATION
OIL COOLER CIRCULATING
SANITARY AND FIRE
TUNNEL WATER SERVICE
FIRE AND WASH DECK
BALLAST TRIMMING
DRINKING WATER
BALLAST AND WASH DECK
BILGE & EMERGENCY BILGE
DOMESTIC FRESH WATER
SOFTENED WATER PLANT
POWER AND HOTEL PLANT
HOT SALT & FRESH WATER
AIR-CONDITIONING PLANT
REFRIGERATING CIRCULATING

DRYSDALE & Co. Ltd
YOKER, GLASGOW
The first Howden engine works at 4, Scotland Street, Glasgow, built in 1862

A 3.55m Z9 double inlet fan impeller being prepared for balancing on the Hoffman balance testing machine in the Glasgow Scotland Street works
Howden Induced-Draught Fan with Inlet Scroll Dust Collector under construction
Illustration from *A Hundred Years of Howden Engineering*, 1954
Assembling a Howden Induced-Draught Fan with Inlet Vane Control
Illustration from *A Hundred Years of Howden Engineering, 1954*
While manufacturing their own range of fans, Howden acquired both Davidson and Sturtevant
Howden Sirocco L-Type centrifugal fan impellers
Cochran vertical steam boiler
COCHRAN BOILERS

In 1878, the company was set up in Birkenhead by James Taylor Cochran and Edward Compton. It was Compton who invented and patented what was to become the famous Cochran vertical boiler. The boiler was an immediate success. (The company also produced paddle steamers and two early submarines with their novel steam plants.) When the firm needed larger premises, it moved in 1897/98 to Annan in Dumfriesshire where it grew to be a major world-wide exporter of Cochran boilers and where in 1998 it celebrated its one hundred years in Scotland.
Two huge Cochran industrial kettles
COCHRAN BOILERS

Cochran Thermax Boiler, 2013

Cochran Oil-fired Boiler under test
First £100 Mortgage Debenture of the Engineering Company, P & W MacLellan Ltd issued in 1899
The long established Glasgow Engineering Group was acquired by Haden plc in 1897.
Robert Boyle Senior was born in 1821, first going into business in Glasgow as a baker, he moved in scientific circles producing a number of minor inventions. His son, Robert, followed in his footsteps and they later conceived their “Patent Self-Acting Air-Pump Ventilator.” The date is unclear but the company was operating in the late 1860s.
In 1841, James Boyd was a window glazier. By 1894, James Boyd & Sons were known as “Hot-House Builders and Heating Engineers,” the company claiming to have been established in 1826. John, one of the sons, is believed to have been the driving force in expanding the heating business. The firm became agents for the Reck System introduced into the UK in 1903. The Reck System, devised by Captain A B Reck of Copenhagen, employed steam to promote accelerated circulation in hot-water heating systems. Installations in Glasgow included the Stock Exchange, the Institution of Engineers and Shipbuilders and the Western Infirmary. In 1946/47, J B W Boyd was the 24th President of the Heating & Ventilating Contractors’ Association.

Catalogue of about 1912

1909 Invoice for work at Glasgow School of Art

The Institution of Engineers & Shipbuilders, Elmbank Crescent, Glasgow.
It was here, in 1936, that the Inaugural Meeting of the IHVE Scottish Branch was held.
WALTER MACFARLANE & COMPANY, GLASGOW

MACFARLANE’S CASTINGS
Hot Water Pipes
AND Connections
CATALOGUES & PRICE LISTS ON APPLICATION
Saracen Foundry, Glasgow

MACFARLANE’S CONDUCTOR PIPES, for Rain-water, Stove, Drain, Soil, and Ventilating purposes. Plain and Ornamental.
MACFARLANE’S EAVE GUTTERS, for Rain-water, Building Cornices, Boundary Walls, Sheds, Valley Roofs, Water Conduits, &c.
MACFARLANE’S TERMINALS, FINIALS, CROSSES, BANNERETS, WEATHER-VANES, FLAGSTAFFS, BELFRIES, &c., in every style.
MACFARLANE’S RAILING, CRESTING, BALCONIES; FRIEZE, ALTAR-SCREEN, GALLERY FRONT, and TOMB RAILS, &c.
MACFARLANE’S COLUMNS, PILASTERS, BRACKETS, SPANDRILS, VERANDAHS, PORCHES, ARBOURS, CONSERVATORIES, &c.
MACFARLANE’S LAMP PILLARS, STANDARDS and BRACKETS, for Streets, Squares, Gateways, Stations, Bridges, &c.
MACFARLANE’S DRINKING FOUNTAINS, for Streets, Schools, Squares, Parks, Gardens, Stations, Market Places, &c.
MACFARLANE’S URINALS, in Cast Iron, for Streets, Courts, Schools, Railways, Factories, Public Works and Institutions.
MACFARLANE’S WATER-CLOSETS, in Cast Iron, for Schools, Railways, Factories, Public Works and Institutions generally.

ELECTRIC LIGHT PILLARS AND BRACKETS.
ELECTRIC WIREWAYS.
GLASS ENAMELLED DRAIN AND SOIL PIPES A SPECIALITY.

WALTER MACFARLANE & CO.,
Architectural, Sanitary, & General Ironfounders, GLASGOW.

1897
CAMERON & ROBERTON LTD

ARCHITECTURAL PIPE AND GENERAL IRONFOUNDERS

Inspection or access pipes; disconnecting channels; traps &c. being the latest developments and improvements devised by the leading sanitary engineers to meet the requirements of mansions, villas, hospitals, asylums and all public buildings. Also rain water pipes; gutters and connections; hot water pipes; socket and spigot-and-with expansion joints; ornamental gratings; crestings; terminals &c.; flue pipes up to 10" diameter; gas, water and steam pipes.

SPECIALITY SANITARY CASTINGS

SOUTH BANK IRONWORKS, KIRKINTILLOCH

1910
G.N. HADEN & SONS

LIMITED
Established 1816
Telephone—Central 5305/6

Specialists in
Heating, Ventilating, Hot
Water Supply, and Cooking
Appliances of all descriptions

Radiant and Panel Invisible
Heating Systems

Automatic Oil Burners and
Automatic Coal Stokers

Inspections, Reports and Estimates
free of charge

86 ST. VINCENT ST.,
GLASGOW, C. 2.
1970 brochure: Haden Young had regional offices in Glasgow, Edinburgh and Aberdeen.

The Company was formed in 1969 when G N Haden acquired Troughton & Young.
BRIGHTSIDE HEATING & ENGINEERING COMPANY LTD

Advertisement from 1956: Company founded 1865
Scottish offices in Edinburgh and Glasgow
Arthur Scull was founded in 1881 and Drake & Gorham in 1886. The Company had offices in Glasgow, Edinburgh, Dundee & Inverness.
Commissioning the main supply air fan at Glasgow Royal Infirmary
The Consultancy Practice was established in 1945
Commissioning a large ventilation system
Modern energy-efficient zero carbon ammonia refrigeration machine

Interior of packaged chiller/air cooled condenser unit
The Company was founded in 1970
STAR REFRIGERATION

Industrial refrigeration

Modern ammonia refrigerating plant
Modern Boiler House: The Company was established in 1906
Computer-aided & semi-automated HVAC ductwork manufacture
(The original Company dates back to 1871)
Pipework prefabrication
RICHARD IRWIN SERVICES GROUP

Boiler House & Chimney (Richard Irwin Building Services, Aberdeen)